

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027673**Date Inspected:** 30-May-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Component**Summary of Items Observed:**

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

**In Process Visual Inspection****Tower**

This QA randomly observed ABF/JV qualified welder Jin Pei Wang #7299 performing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-F1200A and ABF-WPS-D15-1160. Welding consisted of a thirty millimeter (30mm) fillet weld and a Partial Joint Penetration (PJP) to attach corner stiffener plate designated as #142-1 at 13m elevation.

During welding, ABF Quality Control (QC) Bernard Docena was noted monitoring the welding parameters. Welding parameters were recorded as (A=130).

This QA randomly observed ABF/JV qualified welder Xiao Jian Wan #9677 performing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-F1200A and ABF-WPS-D15-1160. Welding consisted of a thirty millimeter (30mm) fillet weld and a Partial Joint Penetration (PJP) to attach corner stiffener plate designated as #141-1 at 13m elevation.

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During welding, ABF Quality Control (QC) Bernard Docena was noted monitoring the welding parameters. Welding parameters were recorded as (A=131).

This QA randomly observed ABF/JV qualified welder Xiao Hua Luo #1291 performing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-F1200A and ABF-WPS-D15-1160. Welding consisted of a thirty millimeter (30mm) fillet weld and a Partial Joint Penetration (PJP) to attach corner stiffener plate designated as #139-1 at 13m elevation.

During welding, ABF Quality Control (QC) Bernard Docena was noted monitoring the welding parameters. Welding parameters were recorded as (A=131).

### Electroslag Weld Excavations

This QA observed, at random intervals, ABF/JV qualified welder Wai Kit Li #2953 performing Flux Core Arc Welding (FCAW) implementing Caltrans approved Welding Procedure Specification Specification (WPS) ABF-WPS-D15-3000-3Repair. The joint being welded was tower shear plate designated as ESW weld, location "E" from face A.

Dimensions excavated for this repair were: (Y=400mm~4140mm)

During welding, ABF Quality Control (QC) Jesse Cayabyab was noted monitoring the welding parameters. Welding parameters were recorded as (A=230, V=22.6).

### Ultrasonic Testing

This QA performed Ultrasonic Testing (UT) on approximately 920mm of Deck Plate Drop-In Complete Joint Penetration (CJP) splice weld at 13E pp122.2. Locations (Y=6000~6320 and 6800~7400) of this weld was inspected using this testing method.

This weld was previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3.

This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

This weld is a Seismic Performance Critical Member (SPCM) member.

### Note:

This QA spent sections of this shift reviewing and documenting the status and completion of various punch list items. This QA photo documented the current status of punch list items for further review. In addition, this QA collected supporting documentation such as QC Daily and Non Destructive Testing (NDT) reports to be submitted with punch list findings.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Clifford, William
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell, Bill
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QA Reviewer
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